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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,258	11/26/2003	Brian Scott Crawford	215407-106243	6143

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EXAMINER

KIM, SUN U

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/721,258	CRAWFORD ET AL.	
	Examiner	Art Unit	
	John Kim	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-21 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 12, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. This Office Action is in response to the Amendment filed on September 25, 2006.
2. Claims 1 and 12 are objected to because of the following informalities: “filer” on line 3 of claim 1 should be corrected to ”filter”. “an” on line 3 of claim 12 should be corrected to “and”. Appropriate correction is required.
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Janik et al ‘144 (US Patent No. 5,985,144).

Regarding Claim 1, Janik et al ‘144 disclose a filter assembly for filtering a fluid, the filter assembly comprising: a substantially annular filter element (30); a filter housing (21) containing the filter element (30); an end plate (20) secured to the filter housing, the end plate (20) having at least one fluid inlet (20); and a directional fluid insert (40) having at least one of fin (50) disposed between the first end of the filter element (30) and the end plate (20) (see Fig. 1a, 1b, 2). Recitation of “at least one of fin provided to cause said fluid entering said filter housing through said at least one fluid inlet to swirl around said filter element” is an intended use of the fin and is not given patentable weight. At least one of fin (50) of Janik et al ‘144 is capable of moving the fluid in radial direction into the annular space between the side wall of the housing (21) and the filter element (30). It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the

claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Regarding Claim 2, Janik et al '144 disclose that the end plate (20) is permanently secured to the first end of the filter housing (21)(see Fig. 2).

Regarding Claim 3, Janik et al '144 disclose that the end plate (20) is further provided with at least one central fluid outlet (see Fig. 2).

Regarding Claim 5, Janik et al '144 disclose that the directional fluid insert (40) is attached to the first end of the filter element (30) (see Fig. 2).

Regarding Claims 6-7, Janik et al '144 disclose a snap fit coupling including flexible mounting tabs (56) formed integrally with and axially extending from the directional fluid insert (46, 50) (see Fig. 1a; col. 5, lines 3-5).

Regarding Claim 11, Janik et al '144 disclose a substantially annular base ring (46) formed integrally with a plurality of fins (50) (see Fig. 1a).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (U.S. Patent No. 6,423,225 B2) in view of Janik et al '144.

Regarding Claim 1, Wong et al disclose a filter assembly for filtering a fluid, the filter assembly comprising: a substantially annular filter element (12); a filter housing (14) containing the filter element; an end plate (32) secured to the filter housing, the end plate (32) having at

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least one fluid inlet (36); and a directional fluid insert (40) having at least one of fin (42), the at least one of fin provided to cause the fluid entering the filter housing through the at least one fluid inlet to swirl around the filter element. However, Wong et al do not disclose that the fin is disposed between the first end of the filter element and the end plate. Janik et al '144 teach a filter assembly comprising a direction fluid insert having at least one of fins (50) disposed first end of the filter element (30) and the end plate (20) (see Fig. 1a, 1b, 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wong et al by positioning the fin disposed between the first end of the filter element and the end plate as in Janik et al '144 for directing fluid flow radially and outwardly to the annular space between the sidewall of the filter housing and the filter element from above the first end of the filter element as suggested by Janik et al '144 (see col. 5, lines 5-8).

Regarding Claim 2, Wong et al disclose that the end plate (32) is permanently secured to the first end of the filter housing (14) (see Fig. 1).

Regarding Claim 3, Wong et al discloses that the end plate (32) is further provided with at least one fluid outlet (34) (see Fig. 1).

Regarding Claim 4, Wong et al disclose that a directional fluid insert (40) is formed as a single-piece plastic molding (see Col. 3, Lines 50-55).

Regarding Claim 5, Wong et al disclose that the directional fluid insert (40) is attached to the first end of the filter element (13) (see Fig. 1).

Regarding Claim 6, Wong et al disclose that the directional fluid insert includes a snap fit coupling for securing the directional fluid insert to the filter element (see Col. 3, Lines 48-50).

Regarding Claim 9, Wong et al disclose that at least one fin (42) of the directional fluid insert (40) has a substantially flat fluid deflecting surface canted at an angle with respect to a central axis of the filter assembly (see Fig. 7, 10; col. 3, lines 23-37).

7. Claims 1-3, 5-11 and 13 are rejected under 35 U.S.C. 103(a) as being obvious over Rhyne et al.(U.S. Patent No. 6,761,822 B1) in view of Janik et al '144.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding Claim 1, Rhyne et al disclose a filter assembly for filtering a fluid, the filter assembly comprising: a substantially annular filter element (40); a filter housing (12) containing the filter element; an end plate (18) secured to the filter housing, the end plate having at least one fluid inlet (20); and a directional fluid insert (120) having at least one of fin (122), the at least

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one of fin provided to cause the fluid entering the filter housing through the at least one fluid inlet to swirl around the filter element (see Fig. 1, 4, 5). However, Rhyne et al do not disclose that the fin is disposed between the first end of the filter element and the end plate. Janik et al '144 teach a filter assembly comprising a direction fluid insert having at least one of fins (50) disposed first end of the filter element (30) and the end plate (20) (see Fig. 1a, 1b, 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rhyne et al by positioning the fin disposed between the first end of the filter element and the end plate as in Janik et al '144 for directing fluid flow radially and outwardly to the annular space between the sidewall of the filter housing and the filter element from above the first end of the filter element as suggested by Janik et al '144 (see col. 5, lines 5-8).

Regarding Claim 2, Rhyne et al disclose that the end plate (18) is permanently secured to the first end of the filter housing (12) (see Fig. 1).

Regarding Claim 3, Rhyne et al disclose that the end plate (18) is further provided with at least one fluid outlet (22)(see Fig. 1).

Regarding Claim 5, Rhyne et al disclose that the directional fluid insert (120) is attached to the first end of the filter element (40) (see Fig. 1).

Regarding Claim 6, Rhyne et al disclose that the directional fluid insert (120) includes a snap fit coupling (142) for securing the directional fluid insert (120) to the first end of the filter element (40) (see Fig. 4-5; Col. 5., Lines 14-18).

Regarding Claim 7, Rhyne et al disclose that the snap fit coupling includes a plurality of flexible mounting tabs (142) formed integrally with and axially extending from the directional fluid insert (120) (see Fig. 4-5).

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Regarding Claim 8, Rhyne et al disclose that at least one fin (122) of the directional fluid insert (120) has a substantially curved fluid deflecting surface (see Fig. 5).

Regarding Claim 9, Rhyne et al disclose that at least one fin (122) of the directional fluid insert (120) has a substantially flat fluid deflecting surface canted at an angle with respect to a central axis of the filter assembly (see Fig. 4).

Regarding Claim 11, Rhyne et al disclose that the directional fluid insert (120) includes a substantially annular base ring (140) formed integrally with a plurality of fins (122) (see Fig. 4-5; col. 5, lines 11-18).

Regarding Claim 13, Rhyne et al disclose that the plurality of the fins (122) extend substantially radially from the base ring (see Fig. 5).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al in view of Janik et al '144 as applied to Claim 1 above, and further in view of Druffel (U.S. Patent No. 4,298,465).

Regarding Claim 10, Wong et al in view of Janik et al '144 does not disclose a continuous spiral fin. Druffel teaches a filter assembly comprising a filter insert with a spiral fin (68) (see Fig. 3, 5; col. 4, line 63 – col. 5, line 6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of fin of Wong et al in view of Janik et al '144 with the continuous spiral strip to create centrifugal force to effectively separate water and particles from fuel as suggested Druffel (see col. 4, line 63 – col. 5, line 6).


9. Claims 12 and 14-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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10. Claims 16-21 are allowed.
11. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is 571-272-1142. The examiner can normally be reached on Monday-Friday 7 a.m. - 3:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Kim
Primary Examiner
Art Unit 1723

JK
05/15/06